

# TABLE A-II/1 Specification of Minimum Standard of Competence OFFICER IN CHARGE OF A NAVIGATIONAL WATCH

**ASSESSMENT NO.** OICNW-2-2B

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of the principles to be observed in keeping a safe watch

**TASK:** Keep a safe navigation watch

**PERFORMANCE CONDITION:** On a ship underway or a full mission ship simulator during an exercise at sea.

**PERFORMANCE BEHAVIOR:** Properly keep a safe navigational watch in accordance with STCW Code Section A-VIII/2, Part 3-1, Paragraph 23 to 50.

**PERFORMANCE STANDARD:**

1. The voyage plan was closely and continuously monitored;
2. A proper look out was maintained by all available means;
3. A safe speed was maintained throughout the watch period;
4. Position, course and speed were checked at frequent intervals;
5. The steering mode selected was appropriate to the area being transited;
6. Ensures that under keel clearance was suitable for the draft of the vessel at all times;
7. Course changes were made in accordance with the voyage plan;
8. The vessel's position was fixed and plotted on an appropriate chart at intervals suitable to the vessel's speed and the area being transited;
9. The identity of critical aids to navigation in sight is determined;
10. More than one method, including electronic and other navigational equipment, external fixed aids, geographic reference points, and hydrographic contours, is used to fix the vessel's position and check the accuracy of fixes;
11. Radio equipment was frequently checked to verify it is functioning properly;
12. The risk or danger of collision with each approaching vessel is determined and early and substantial action is taken in accordance with the COLREGS to avoid collisions;
13. Rudder and engine orders were executed as ordered;
14. The validity of the gyro input to all navigation equipment is verified;
15. Gyrocompass error was determined by any available means and the error was logged;
16. Magnetic variation and compass deviation were correctly applied to courses and bearings;
17. The candidate determined the person steering the vessel was competent to do so;
18. Tide and current conditions for the watch period were determined in coastal or tidal waters;
19. Set and drift were determined and applied to allow for set and drift;
20. The weather conditions at the ship were correctly and timely recorded and reported as required;
21. Running lights were checked throughout the watch period;
22. The master was notified as directed by all master's or standing orders;
23. All required log entries were made; and
24. All relevant navigation information was used to identify protected marine habitats, areas, and sanctuaries

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Candidate

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Candidate's Mariner Reference No.

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Assessor

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Position

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Vessel or School

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Assessor's Mariner  
Reference No.

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Date

**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-2D

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of the principles to be observed in keeping a safe watch

**TASK:** Keep a safe anchor watch

**PERFORMANCE CONDITION:** On a ship at anchor or a full mission ship simulator during an exercise at anchor with wind and seas building.

**PERFORMANCE BEHAVIOR:** Properly keep a safe anchor watch in accordance with STCW Code Section A-VIII/2, Part 3-1, Paragraph 51.

**PERFORMANCE STANDARD:**

1. Determined and plotted the ship's position;
2. Frequently checked the ship's position by visual and radar bearings and radar ranges from the same charted objects;
3. Established the GPS or DGPS anchor alarm;
4. Maintained a proper lookout;
5. Ensured periodic inspections were made;
6. Posted a rating at the anchor to carry out orders with respect to the anchor;
7. Monitored weather, tides and sea state;
8. Notified the master immediately when the weather changed, visibility became restricted, or the anchor started to drag;
9. Placed engines on standby and ensured that they are ready for immediate use where appropriate; and
10. Properly displayed all required lights and shapes and sounded proper sound signals.

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Candidate

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Candidate's Mariner Reference No.

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Assessor

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-2E

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of the principles to be observed in keeping a safe watch

**TASK:** Navigate in restricted visibility

**PERFORMANCE CONDITION:** On a ship at sea or a full mission ship simulator during an exercise at sea, when visibility becomes restricted while underway.

**PERFORMANCE BEHAVIOR:** Recognize the restricted visibility take the appropriate action to navigate in restricted visibility in accordance with the COLREGS in accordance with Section STCW Code A-VIII/2, Part 3-1, Paragraph 45.

**PERFORMANCE STANDARD:**

1. The restricted visibility was determined;
2. The master was notified;
3. Steering was switched to hand steering;
4. A proper lookout was posted and the running lights turned on;
5. The vessel's speed was set in accordance with Rule 6;
6. Sounding of required signals was commenced;
7. The radar or ARPA was set on the appropriate scale to scan at long range for the presence of other vessels; and
8. Approaching targets were plotted or the ARPA or radar was used to obtain early warning of risk of collision and determine the speed and direction of relative motion.

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Assessor

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## TABLE A-II/1 Specification of Minimum Standard of Competence OFFICER IN CHARGE OF A NAVIGATIONAL WATCH

**ASSESSMENT NO.** OICNW-2-3B

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** Execute a voyage plan

**PERFORMANCE CONDITION:** On a ship, or a full mission ship simulator, when given a voyage plan.

**PERFORMANCE BEHAVIOR:** Execute the voyage plan.

**PERFORMANCE STANDARD:**

The candidate, in accordance with paragraph 4 and 5 of the annex to IMO Assembly Resolution A 893(21):

1. Checks the reliability and condition of the navigational equipment at frequent intervals;
2. Applies basic information obtained from the tide tables and other navigational publications to determine under keel clearance;
3. Fixes the vessels position at appropriate intervals;
4. Checks magnetic and gyro-compasses;
5. Assesses meteorological information;
6. Determined compass error;
7. Calculates sailings for up to 24 hours;
8. Correctly operates and applied information from electronic navigation systems;
9. Correctly operates the radar and ARPA and applied the information for navigation and collision avoidance;
10. Correctly operates propulsion and steering systems to control heading and speed;
11. Initiates action in event of a real or simulated equipment malfunction or failure of major items of equipment;
12. Correctly conducts radio-communications;
13. Monitored and correctly operates safety and alarm systems.
14. Closely and continuously monitors the voyage plan.

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Candidate

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-3C

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** BRM – Recognition of watch condition

**PERFORMANCE CONDITION:** On a ship at sea or a full mission ship simulator during an exercise at sea, when help is needed because of restricted visibility, vessel traffic or safety of navigation.

**PERFORMANCE BEHAVIOR:** Recognize the need for additional personnel on the bridge and notify the master.

**PERFORMANCE STANDARD:**

The candidate notifies the master immediately if:

1. The vessel encounters or expects to encounter restricted visibility;
2. There is cause for concern because of vessel traffic density or the movements of other ships;
3. the vessel will transit restricted waters with vessel traffic; or
4. he or she was fatigued to the point that decision making is affected.

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Candidate

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-3D

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** BRM Condition III – collision avoidance.

**PERFORMANCE CONDITION:** the ship is navigating near land, shoals or with increased traffic density and/or restricted visibility. This condition requires concentrated navigation and observation of traffic for collision avoidance (entering or leaving port).

On a ship at sea or a full mission ship simulator during an exercise at sea, and with a bridge team in place for navigating in congested near coastal waters with or without reduced visibility, and assigned to monitor vessel traffic using an IMO compliant ARPA. The ship is navigating near land, shoals, or with increased traffic density and/or restricted visibility.

**PERFORMANCE BEHAVIOR:** Identify all vessels (targets) posing a risk or danger of collision, and provide appropriate information and recommendations on vessel traffic and any other situation or condition that may effect the safe navigation of the vessel to the conning officer.

**PERFORMANCE STANDARD:**

1. The risk and danger of collision of all approaching vessels is determined within 6 minutes;
2. The conning officer was immediately notified of the relative position of the threatening vessel, its CPA and TCPA;
3. Course changes in accordance with the COLREGS to remove the risks of collision and avoid the close quarters situations from developing were recommended;
4. All recommended course or speed changes resulted in increasing the CPA to approaching vessels identified as posing a risk or danger of collision;
5. All recommended course changes provided sufficient sea room and bottom clearance for the area transited;
6. Communication was clear, immediate, reliable and relevant; and
7. Non-essential activities were avoided.

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-3E

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** BRM Condition III – navigation

**PERFORMANCE CONDITION:** On a ship at sea or a full mission ship simulator during an exercise at sea, and with a bridge team in place for navigating in congested near coastal waters with or without reduced visibility, and assigned to monitor the vessel's position, communicate on the VHF, and all other bridge duties, using an IMO compliant ARPA, a GPS or DGPS receiver and all other bridge navigational equipment identified in the performance standard.

**PERFORMANCE BEHAVIOR:** Determine and plot the vessel's position by electronic and visual means, communicate as required on the VHF, and carry out all engine commands, ensure that all rudder commands are properly carried out, and make all appropriate log book entries.

**PERFORMANCE STANDARD:**

1. Visual and electronic means were used to determine the ship's position, including GPS or DGPS, radar, ARPA, ECDIS (if fitted), and Echo Sounder;
2. The vessel's position was plotted in accordance with tolerances stated previously at regular intervals appropriate to the vessel's speed and the area transited;
3. The correct courses to steer to maintain the ship on the intended track were determined and recommended to the conning officer;
4. All VHF calls to own ship were answered and calls to other ships in the area and port authorities were made as required;
5. The helmsman was monitored to ensure all rudder commands were carried out;
6. Communication was clear, immediate, reliable and relevant;
7. Non-essential activities were avoided; and
8. All required entries in the appropriate vessel's logs were made.

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Candidate

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Assessor

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-3F

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** BRM Condition II or III – error trapping

**PERFORMANCE CONDITION:** The ship is underway offshore in restricted visibility, with increased traffic, land or shoals affecting navigation (coastwise navigation).

On a ship at sea or a full mission ship simulator during an exercise at sea, and with a bridge team in place for navigating in congested near coastal waters with or without reduced visibility, and assigned duties as an officer in a Bridge Team, when one of the following occur:

1. an incorrect rudder order is given;
2. a rudder or engine command is not given at the proper time;
3. a navigational aid is misidentified;
4. the vessel's position is improperly fixed; or
5. a target vessel's movements are improperly stated.

**PERFORMANCE BEHAVIOR:** Monitor vessel's movement, recognize erroneously stated information about the vessel's position or a target vessels movement, and notify the conning officer of specific questions regarding the vessel's situation.

**PERFORMANCE STANDARD:**

1. The misinformation or command error was detected.
2. The conning officer was notified within 30 seconds of the occurrence of the error (for helm orders, the candidate will detect the error and issue a corrective order within 5 seconds).

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-3G

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** BRM Condition II – navigation & collision avoidance

**PERFORMANCE CONDITION:** On a ship at sea or a full mission ship simulator during an exercise at sea, when acting as part of the bridge team with assigned duties to monitor the vessel's navigation and determine the risk or danger of collision with all vessels underway in open sea, using an ARPA meeting all national and international performance requirements, a GPS or DGPS receiver and all the bridge equipment identified in the performance standard.

**PERFORMANCE BEHAVIOR:** Determine and plot the vessel's position at suitable intervals, and plot or systematically observe all approaching vessels and inform the bride team of dangers to navigation, intended course changes, and vessels which pose a risk or danger of collision.

**PERFORMANCE STANDARD:**

1. The vessel's position was determined and plotted at suitable intervals;
2. All aids to navigation were identified;
3. The bridge team was notified immediately of the following:
  - a) when planned course changes must be made;
  - b) effects of tides or currents setting the vessel off its intended course: or, c) any doubt about the vessel's position.
5. The risk and danger of collision with approaching vessels in the vicinity were determined by visual and radar/ARPA bearings.
4. The bridge team was notified of the following:
  - a) danger or risk of collision with any approaching vessel;
  - b) recommended course change to avoid the risk or danger of collision; and,
  - c) recommended speed change to avoid the risk or danger of collision if the engines are available for immediate use.

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Candidate

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-3H

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** BRM Condition III – establish a bridge team

**PERFORMANCE CONDITION:** On a ship at sea or a full mission ship simulator during an exercise at sea, to establish a bridge team to monitor the vessel's navigation and determine the risk or danger of collision with all vessels.

**PERFORMANCE BEHAVIOR:** Determine the number of officers required safely navigating the vessel and assign individual officers and crewmembers specific duties and functions as part of the bridge team.

**PERFORMANCE STANDARD:**

Officers were assigned to the following tasks:

1. Conning;
2. Lookout
3. Collision avoidance; and
4. Navigation;
5. Communication; and,
6. Administration.

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Candidate

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Assessor

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**TABLE A-II/1 Specification of Minimum Standard of Competence  
OFFICER IN CHARGE OF A NAVIGATIONAL WATCH**

**ASSESSMENT NO.** OICNW-2-3I

**FUNCTION:** Navigation at the Operational Level

**COMPETENCE:** Maintain a safe navigational watch

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** *Watchkeeping* -- Thorough knowledge of effective bridge teamwork procedures

**TASK:** BRM Condition II or III – Prioritization

**PERFORMANCE CONDITION:** On a full-mission ship simulator during an exercise at sea, and with a bridge team in place, while navigating in congested near- coastal waters in good visibility, and assigned duties as an officer in a bridge team, and given the following:

1. a vessel on own ship's starboard bow changes course and creates a risk of collision;
2. there is insufficient water depth for own ship to turn to starboard;
3. the diesel engines are using heavy fuel;
4. a vessel ahead is on a reciprocal course 1.5 nm away with a CPA of 0.5 nm on the port side; and
5. the GMDSS distress alarm sounds.

**PERFORMANCE BEHAVIOR:** Determine the appropriate action to take..

**PERFORMANCE STANDARD:**

The candidate:

1. assesses the situation;
2. determines in which priority action must be taken for the safety of the vessel;
3. recommends that the engines be slowed or stopped in sufficient time to avoid the collision with the vessel on the starboard bow; and
4. after the danger of collision is over, acknowledges the distress call.

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Candidate

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Assessor

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